REMARKS

Claims 1-15 and 78-84 are pending in this application. Claims 13-15, 79, 83 and 84 are cancelled. Claims 1-12, 78, 81 and 82 are amended. New claims 85-89 are added.

Support for the amendments for claims 1, 7 and 78 can be found, for example, in the specification on page 5, line 26 to page 6, line 12; page 9, lines 16-19 and 23-28; page 40, lines 12-21; page 42, lines 13-26 and page 52, lines 12-14. Support for the amendments for claims 3, 9 and 82 can be found, for example, in the specification on page 6, lines 17-23; page 11, lines 6-7; and page 32, lines 1-9. Support for claim 81 and new claims 85 and 88 can be found, for example, in the specification on page 15, lines 13-24 and page 32, lines 10-22. Support for new claims 86, 87 and 89 can be found, for example, in old claims 1, 7 and 78, and page 5, line 26 to page 6, line 12; page 9, lines 16-19 and 23-28; page 40, lines 12-21 and page 42, lines 13-26.

Claims 1-12, 78, 80-82, and 85-89 are therefore now pending in the present application. Reconsideration is respectfully requested in view of the following remarks.

I. 35 U.S.C. § 112

Claims 1-15 and 78-84 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 1, 7 and 78 to delete recitation of the limitation "attachment of label monomers of said unique labels to nucleotides in a 1:1 correspondence." Therefore, the rejection is rendered moot. Applicant respectfully requests that the claim rejection be withdrawn.

In addition, Applicant has deleted the term "about" in claims 1-2, 4, 5, 7-8, and 10-11.

Applicant has also amended claims 2-6, 8-12 and 81-82. In particular, Applicant has replaced the term "labels" with "label monomers" in claims 3, 9 and 82 to claim the composition of the unique labels as anti-genedigits comprising label monomers. Support for this amendment is recited above. Similarly, Applicant has amended the term "unique labels" to "label monomers" in claims 81 and 82. Support for this amendment is recited above. Applicant has also amended claims 5, 6, and 10-12 to add terms from independent claims 1 and 7.

Finally, Applicant has amended dependent claim 81 and added new claims 85 and 88 to recite the element that the "label monomers are combined at different ratios" to further claim one

means by which a diverse population of labels or nucleic acid probes of the invention is obtained. Support for this amendment is recited above.

In light of the amendments above, Applicant respectfully requests that the Examiner withdraw the rejection.

II. Claim Rejection Under 35 U.S.C. § 102(b):

Claims 1, 3-4, 6-7, 10 and 12 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Luehrsen et al. (J. Histochem. Cytochem. 48:133014 (2000)).

The Examiner states that Luehrsen et al. teach a diverse population of labels of claim 1 and 7, comprising about thirty or more unique labels (16-64 labels), wherein each of said unique label is bound to a nucleic acid molecule or nucleic acid probe by attachment of label monomers of unique labels to nucleotides in a 1:1 correspondence.

Applicant respectfully submits that Luehrsen et al. does not teach or suggest the claimed invention. Applicant has amended claims 1 and 7 to recite at least two anti-genedigits in a diverse population of labels, or at least two genedigits attached in a 1:1 correspondence to a nucleic acid probe. Therefore, the rejection no longer applies to these amended claims and their dependents, including new claims 85-87.

Applicant respectfully requests that the Examiner withdraw the rejection.

III. Claim Rejections Under 35 U.S.C. § 102(e):

Claims 1-10, 12-15 and 78-84 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Mirkin et al. (U.S. Patent No. 6,361,944). Claims 13-15, 79, 83 and 84 are cancelled.

The Examiner states that Mirkin teaches a diverse population of labels or labeled probes and kit comprising the said labels, comprising at least two unique labels, wherein each said unique label is bound to a nucleic acid molecule by attachment of said labels to nucleotides in a 1:1 correspondence.

Applicant respectfully submits that Mirkin does not teach or suggest the claimed invention. Applicant has amended claims 1, 7 and 78 to recite at least two anti-genedigits in a diverse population of labels, or at least two genedigits attached in a 1:1 correspondence to a nucleic acid

probe. Therefore, the rejection no longer applies to these amended claims and their dependents, including new claims 85-89.

Applicant respectfully requests that the Examiner withdraw the rejection.

IV. Claim Rejections Under 35 U.S.C. § 102(e):

Claims 1, 4, 6 and 10-11 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Krantz et al. (U.S. Patent No. 6,277,583).

The Examiner states that Krantz teaches a diverse population of labels, comprising one or more unique labels, wherein each said unique label monomer is bound to a nucleotide or a nucleic acid molecule.

Applicant respectfully submits that Krantz does not teach or suggest the claimed invention. Applicant has amended claims 1 and 7 to recite at least two anti-genedigits in a diverse population of labels, or at least two genedigits attached in a 1:1 correspondence to a nucleic acid probe. Therefore, the rejection no longer applies to these amended claims and their dependents, including new claims 85-87.

Applicant respectfully requests that the Examiner withdraw the rejection.

V. Barany et al. Patents:

In the Interview of November 10, 2004, the Examiners suggested Barany et al. would read on the instant claims. Although the Examiners did not point to a specific reference during the interview , Applicant believes Barany et al. does not read on the pending claims. In addition, in the interest of expediting the application, Applicant submits with this response an Information Disclosure Statement listing the Barany zip code patents and published patent applications.

Applicant respectfully submits that the Barany patents and published patent applications do not teach or suggest the claimed invention. Applicant has specifically reviewed the following Barany et al. patent and patent applications: U.S. Patent Nos. 6,027,889; 6,312,892; 6,268,148; 6,506,594; 6,534,293; 6,797,470; and U.S. Patent Application Publication Nos. 2002/0150921; 2003/0022182; 2003/0032016; 2003/0082545; 2003/0175750; 2003/0190634; 2004/0048308; 2004/0203061; 2004/0214224. Applicant believes that the Barany patents and patent applications do not apply to amended claims 1, 7 and 78 and their dependents, including new claims 85-89.

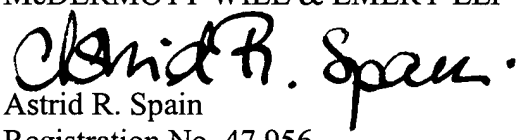
CONCLUSION

In light of the remarks set forth above, Applicant believes that they are entitled to a letters patent. Applicant respectfully solicits the Examiner to expedite the prosecution of this patent application to issuance. Should the Examiner have any questions, the Examiner is encouraged to telephone the undersigned.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 502624 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



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